

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 261 AND MD 260 IN CALVERT COUNTY. IT IS ASSUMED THAT MD 261 RUNS IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA FOUR-PHASE FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR NORTHBOUND MD 261, A RIGHT TURN OVERLAP PHASE FOR MD 261, AND AN EXCLUSIVE PEDESTRIAN PHASE FOR BOTH THE SOUTH LEG AND WEST LEG OF THE INTERSECTION.

CONTROLLER REQUIRMENTS

INSTALL A FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER WITH VIDEO DETECTION INTERFACE EQUIPMENT, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, FOUR CHANNEL LOOP DETECTOR AMPLIFIER RACK AND ASSOCIATED HARNESS HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET. AN APS CENTRAL CONTROL UNIT WILL BE INSTALLED BY THE CONTRACTOR.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(410) 841-1019

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 841-1005

MR. CHARLES GEORGE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 841-1013

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD DAFF, SR.
CHIEF TRAFFIC OPERATIONS
(410) 787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410)787-7630

MR. MIKE STOCKER
SIGNAL SHOP WAREHOUSE
(410) 787-7696

MR. ROBERT SNYDER
ASSISTANT DIVISION, CHIEF
TRAFFIC OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY,
CHIEF SIGN OPERATIONS
(410) 787-7676

PHASE CHART

	1A	1	2	3	4	5	5A	6	7	8	9	10
PHASE 1 & 6	G	G	G	R	R	R	R	R	DW	DW	DW	DW
1 CHANGE	G	G	G	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	G	G	R	R	R	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	G	G	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW
PED. PHASE	R	R	R	R	R	R	R	R	WK	WK	WK	WK
PED. CLEAR/COUNTDOWN	R	R	R	R	R	R	R	R	FLW#	FLW#	FLW#	FLW#
PED. CHANGE	R	R	R	R	R	R	R	R	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	DARK	DARK	DARK	DARK

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

CATEGORY CODE NO.	DESCRIPTION	UNIT	QUANTITY
900000	VIDEO INTERFACE EQUIPMENT	EA	1
963010	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, RACK MOUNT	EA	1
971017	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET- BASE MOUNT	EA	1
973023	SHEET ALUMINUM SIGNS - POLE/MAST ARM MOUNT	SF	37
	CONSISTING OF:		
	2 - D3-2 DUAL FACE (VAR. X 16") MAST ARM MOUNT		
	1 - ONE PIECE SHIELD ASSEMBLY ON A BLACK BACKGROUND (30" X 51") POLE MOUNT		
	M3-4 (24" X 12")		
	M1-5 (30" X 24")		
	M6-1 (21" X 15")		
	2 - R10-4(1) (9"X12" - BAYSIDE RD) POLE MOUNT		
	2 - R10-4(1) (9"X12" - CHESAPEAKE BCH RD) POLE MOUNT		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FUNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNIT	QUANTITY
203030	TEST PIT EXCAVATION	CY	6
585620	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING	LF	470
585624	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING	SF	75
655104	4 INCH CONCRETE SIDEWALK	CY	32
801004	CONCRETE FOR SIGNAL FOUNDATION	LF	17
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	270
805115	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	190
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	25
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	120
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	20
805145	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	75
805150	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	55
805155	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED	LF	220
807202	METERED SERVICE PEDESTAL	EA	1
810010	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN	LF	25
810601	NON-INVASIVE DETECTOR, 500 FOOT LEAD-IN	EA	2
810610	NON-INVASIVE DETECTOR, CARRIER PIPE	LF	90
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	10
813015	INSTALL OVERHEAD SIGN	SF	37
816001	VIDEO DETECTION CAMERA	EA	3
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	EA	3
818004	10 FT. BREAKAWAY PEDESTAL POLE	EA	2
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	EA	1
818052	STEEL POLE WITH A SINGLE 70 FOOT MAST ARM	EA	1
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	2
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	7
800000	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	30
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	315
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	615
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	600
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	315
800000	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION	EA	4
871117	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT	EA	1
800000	16 INCH PEDESTRIAN COUNTDOWN SIGNAL HEAD	EA	4
800000	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT	LS	1
800000	RELOCATE SIGNAL HEAD	EA	12
800000	AUDIBLE/TACTILE PEDESTRIAN BASE	EA	1

EQUIPMENT LIST "C"

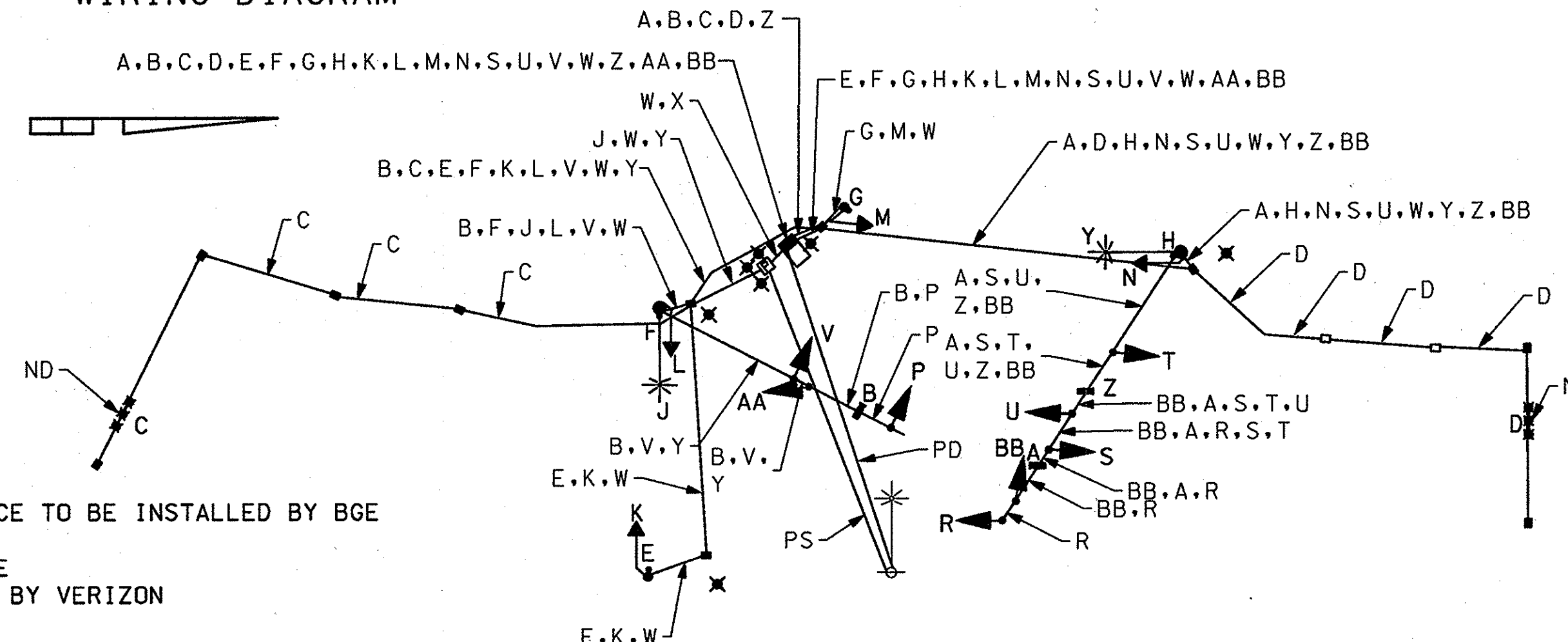
C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND RETURNED TO SHA.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR.

WIRING KEY

A.B.Z	VIDEO DETECTION 250 FT. PRE-MANUFACTURED CABLE
C.D	MICRO-LOOP PROBE 500 FT. LEAD-IN
E.F.G.H	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J.Y	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG)
K.L.M.N.	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
P.R.S.T	
U.V.AA.	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
BB	
W	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
X	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG -THHN/THWN, 3 - RUNS)

WIRING DIAGRAM



ND NON-INVASIVE DETECTOR

PS UNDERGROUND POWER SERVICE TO BE INSTALLED BY BGE

PD PHONE DROP FOR TELEPHONE SERVICE TO BE INSTALLED BY VERIZON

X GROUND ROD

ADDENDUM NO. 2
3/30/06
REPLACES SHEET 105

RK & K
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CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MARYLAND 21217
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION	
MD 260 (CHESAPEAKE BEACH RD) AND MD 261 (BAYSIDE RD) CHESAPEAKE BEACH, MARYLAND	
GENERAL INFORMATION SHEET	
SCALE <u>NONE</u>	DATE <u>8/2005</u> CONTRACT NO. <u>CA4815184</u>
DESIGNED BY <u>HEH/MLH</u>	COUNTY <u>CALVERT</u>
DRAWN BY <u>MLH</u>	LOGMILE <u>04261006.07</u>
CHECKED BY <u>DAE</u>	TIMS NO. <u>H420</u>
FAP NO. <u>N/A</u>	TOD NO. <u></u>
TS NO. TS-12E	DRAWING - OF SHEET NO. 105A OF 146